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Surgeons Use Neck Muscle, Surrounding Tissue as Lip Implant

Mar. 16, 2010 — Augmenting the lips with grafts of muscle and connective tissue from the neck appears to result in improved appearance for at least two years, according to a report in the March/April issue of *Archives of Facial Plastic Surgery*, one of the JAMA/Archives journals.

"Since ancient times, women have used plant dyes and colored clays to enhance their lips," the authors write as background information in the article. As an individual ages, the groove on the upper lip flattens, the white lip lengthens and the amount of vermilion (pink tissue) that shows decreases. "These progressive age-related changes lead many patients to seek lip augmentation procedures, often as their main concern in the midst of an aging face and neck."

"The quest for the ideal permanent lip augmentation procedure has been fraught with challenges," they continue, including resorption, asymmetry, reactions, extrusion, an unnatural feel or appearance and the formation of cysts. Anurag Agarwal, M.D., of The Aesthetic Surgery Center, Naples, Fla., and colleagues report on the results of 25 consecutive patients who underwent lip augmentation with segments of their own sternocleidomastoid, a muscle running along the side of the neck, and the connective tissue that overlies it (fascia).

All patients had a minimum follow-up of one year. After an average of two years, the amount of vermilion showing increased by an average of 20 percent to 24 percent for the upper and lower lip. In addition, the average projection of the upper and lower lip increased by an average of 0.9 to 0.99 millimeters. The patients were subjectively pleased with the results, although one requested additional lip augmentation with an injectable gel.

The muscle and fascia can be removed during a concurrent face lift with few complications, the authors note, and are readily incorporated by the lip. There were no deformities in lip contour, limitations in head movement, neck pain or nerve injuries associated with the grafts.

"The postoperative recovery after sternocleidomastoid fascia and muscle grafts to the lips is straightforward," the authors write. "After the first month of lip swelling, the patient should expect that the lips will still be slightly swollen. The senior author's experience has been that approximately 75 percent of the immediate intraoperative lip fullness is maintained at one month post-operatively, while approximately 50 percent of the immediate intraoperative lip fullness is maintained at one year postoperatively." The surgeon must account for this decrease in the size of grafts initially implanted, they note.

"With careful patient selection and surgical technique, sternocleidomastoid muscle and fascia implantation is a valuable tool when treating the aging lip," the authors conclude.